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<110> FANRONG, KONG  
GILBERT, GWENDOLYN

<120> MOLECULAR TYPING OF GROUP B STREPTOCOCCI

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<140> 10/804,408

<141> 2004-03-19

<150> PCT/AU02/01281

<151> 2002-09-18

<150> AU PR 7749

<151> 2001-09-19

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<170> PatentIn version 3.2

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<400> 110  
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40

<210> 111  
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<220>  
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<400> 111  
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40

<210> 112  
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<220>  
 <223> Synthetic oligonucleotide

<400> 112  
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37

<210> 113  
 <211> 37



<212> DNA  
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 <223> Synthetic oligonucleotide  
  
 <400> 113  
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<210> 114  
 <211> 39  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic oligonucleotide  
  
 <400> 114  
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<210> 115  
 <211> 39  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic oligonucleotide  
  
 <400> 115  
 gtataacttc tatcaatgga tgagtctggt gtagtacgg 39

<210> 116  
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 <213> Artificial Sequence  
  
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 <223> Synthetic oligonucleotide  
  
 <400> 116  
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<210> 117  
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 <212> DNA  
 <213> Artificial Sequence  
  
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 <223> Synthetic oligonucleotide  
  
 <400> 117  
 gctaaatttc aaaaagggtct agagacaaat acgccag 37

<210> 118  
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<212> DNA  
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<220>  
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<400> 118  
cccacatctggt aacttcggtg catctggaag c

31

<210> 119  
<211> 38  
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<220>  
<223> Synthetic oligonucleotide

<400> 119  
cagccaactc tttcgtcggtt acttccttga gatgtaac

38

<210> 120  
<211> 36  
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<220>  
<223> Synthetic oligonucleotide

<400> 120  
gtgaaattgt ataaggctat gaggtagagc ttggag

36

<210> 121  
<211> 33  
<212> DNA  
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<220>  
<223> Synthetic oligonucleotide

<400> 121  
acagtcacag ctaaaagtga ttcgaagacg acg

33

<210> 122  
<211> 40  
<212> DNA  
<213> Artificial Sequence

<220>  
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<400> 122  
 ccgttttaga atctttctgc tctggtgttt taggaacttg 40

<210> 123  
 <211> 37  
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<220>  
 <223> Synthetic oligonucleotide

<400> 123  
 gataaatatg atccaacagg aggggaaaca acagtac 37

<210> 124  
 <211> 41  
 <212> DNA  
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<220>  
 <223> Synthetic oligonucleotide

<400> 124  
 ctgggttttg tgtcacatga accgttactt ctactgtatc c 41

<210> 125  
 <211> 44  
 <212> DNA  
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<220>  
 <223> Synthetic oligonucleotide

<400> 125  
 ggtaatctta atatttttga agagtcaata gttgctgcat ctac 44

<210> 126  
 <211> 33  
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<220>  
 <223> Synthetic oligonucleotide

<400> 126  
 ccagggagtg cagcgacctt aaatacaagc atc 33

<210> 127  
 <211> 23  
 <212> DNA  
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<220>  
 <223> Synthetic oligonucleotide

<400> 127  
 gttttagaac aaggttttac agc

23

<210> 128  
 <211> 41  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide

<400> 128  
 gatcctcaaa acctcattgt attaaatcca tcaagctatt c

41

<210> 129  
 <211> 38  
 <212> DNA  
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<220>  
 <223> Synthetic oligonucleotide

<400> 129  
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38

<210> 130  
 <211> 31  
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<220>  
 <223> Synthetic oligonucleotide

<400> 130  
 ccagttaaga cttcatcacg actcccatca c

31

<210> 131  
 <211> 37  
 <212> DNA  
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<220>  
 <223> Synthetic oligonucleotide

<400> 131  
 cagactgtta aagtggatga agatattacc tttagcg

37

<210> 132  
 <211> 40

<212> DNA  
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 <223> Synthetic oligonucleotide  
  
 <400> 132  
 cttaaagcta agtatgaaaa tgatatcatt ggagctcgtg 40

<210> 133  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic oligonucleotide  
  
 <400> 133  
 gttcttccgc cagataaaat taag 24

<210> 134  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic oligonucleotide  
  
 <400> 134  
 ctggtgactt atctggatag gtc 23

<210> 135  
 <211> 36  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic oligonucleotide  
  
 <400> 135  
 cgtgttggtc aacagtccta tgcttagcct ctggtg 36

<210> 136  
 <211> 35  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic oligonucleotide  
  
 <400> 136  
 ggtatctggt ttatgaccat ttttccagtt atacg 35

<210> 137  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide

<400> 137  
 gttcttccgc ttaaggatag ca 22

<210> 138  
 <211> 37  
 <212> DNA  
 <213> Artificial Sequence

<220>  
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<400> 138  
 gaccgtttgg tccttacctt ttggttcggt gctatcc 37

<210> 139  
 <211> 26  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide

<400> 139  
 tacagatact gtgtttgcag ctgaag 26

<210> 140  
 <211> 42  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide

<400> 140  
 gaagtaattt caggaagtgc tgttacgtta aacacaaata tg 42

<210> 141  
 <211> 36  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide

<400> 141  
gaagggttg tgaaataatt gccgccttgc ctaatg 36

<210> 142  
<211> 36  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide

<400> 142  
aatactagct gcaccaacag tagtcaattc agaagg 36

<210> 143  
<211> 27  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide

<400> 143  
catctatctt atctctcaaa gctgaag 27

<210> 144  
<211> 35  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide

<400> 144  
gagaaaacaa gagggagacc gagtaaaatg ggacg 35

<210> 145  
<211> 37  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide

<400> 145  
cacgatttcg cagttctaaa taaatccgac gatagcc 37

<210> 146  
<211> 36  
<212> DNA  
<213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide  
  
 <400> 146  
 caaactccgt cacatcggt tagcacttct catagg 36

<210> 147  
 <211> 36  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic oligonucleotide  
  
 <400> 147  
 ctattgatga ttgcgcagtt gaattggata gtcgtc 36

<210> 148  
 <211> 36  
 <212> DNA  
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 <223> Synthetic oligonucleotide  
  
 <400> 148  
 gtttgggaca ggtagcgggt gaggagaaaa gtaatg 36

<210> 149  
 <211> 36  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic oligonucleotide  
  
 <400> 149  
 cattactttt ctctcaacc gctacctgtc ccaaac 36

<210> 150  
 <211> 28  
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 <400> 150  
 cccaatacca cgtaacttat gccatttg 28

<210> 151  
 <211> 38



<212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide

<400> 151  
 cgtgttacga gtcacccaa taccacgtaa cttatgcc

38

<210> 152  
 <211> 36  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide

<400> 152  
 cttatgaaca aattgcggct gattttggca ttcacg

36

<210> 153  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide

<400> 153  
 ggctcaggcg attgtcacia gccaaaggag

30

<210> 154  
 <211> 33  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide

<400> 154  
 ctaaaatcct agttcacggt tgatcattcc agc

33

<210> 155  
 <211> 34  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide

<400> 155  
 cgtatctgtc acttatttcc ctgcgggtgt ctcc

34

<210> 156  
 <211> 34  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide

<400> 156  
 gccgatgtca caacatagtt caggatatag ccag

34

<210> 157  
 <211> 36  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide

<400> 157  
 cgtaaaggag tccaaagatg atagcctttt tgaacc

36

<210> 158  
 <211> 38  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide

<400> 158  
 catctcggaa caatatgctc gaagcttaca agcaagtg

38

<210> 159  
 <211> 36  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide

<400> 159  
 ggggtcacta tcgagcagat ggatgactat cttcac

36

<210> 160  
 <211> 35  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide

<400> 160  
aatggctggt tcgcaggagc gattgggtct gaacc 35

<210> 161  
<211> 35  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide

<400> 161  
ccaggacat caatctgtct tgcggaacag tatcg 35

<210> 162  
<211> 2217  
<212> DNA  
<213> Streptococcus agalactiae

<400> 162  
gcaaaagaac agatggaaca aagtgggttca aagttcttag gtattattct taataaagtt 60  
aatgaatctg ttgctactta cggcgattat ggaaattacg gaaaaaggga tagaaaaagg 120  
aagtaaggga ctctgggtatt gaaagaaaaa gaaaatatac aaaagattat tatagcgatg 180  
attcaaacmg ttgtagttta tttttctgca agtttgacat taacattaat tactcccaat 240  
tttaaaagca ataaagatttt attgtttgtt ctattgatac attatattgt tttttatctt 300  
tctgattttt acagagactt ttggagtcgt ggctatcttg aagagtttaa aatgggtattg 360  
aaatacagct ttactatat tttcatatca agttcattat tttttatttt taaaaactct 420  
tttacaacga cagcactttc cttttttact tttattgcta tgaattcgat tttattatat 480  
ctattgaatt cttttttaaa atattatcga aaatattctt acgctaagtt ttcacgagat 540  
accaaagttg ttttgataac gaataaggat tctttatcaa aaatgacctt taggaataaa 600  
tacgaccata attatatcgc tgtctgtatc ttggactcct ctgaaaagga ttgttatgat 660  
ttgaaacata actcgtaag gataataaac aaagatgctc ttacttcaga gttaacctgc 720  
ttaactggtg atcaagcttt tattaacata ccattgaat tatttggtaa ataccaaata 780  
caagatatta ttaatgacat tgaagcaatg ggagtgattg tcaatgttaa thtagaggca 840  
cttagctttg ataatatagg agaaaagcga atccaaactt ttgaaggata tagtggtatt 900  
acatattcta tgaaattcta taaatatagt caccttatag caaaacgatt tttggatatac 960  
acgggtgcta ttatagggtt gctcatatgt ggcattgtgg caatttttct agttccgcaa 1020  
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 actaaaatag gaaaatttat tcgaaaaaca agcatagatg agttgcctca attctataat 1260  
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 aagtataatt caacgcagaa gcgacgcctt agttttaagc caggaatcac tggtttggg 1380  
 caaatatctg gtagaaataa tattactgat tttgatgaaa tcgtaaagtt agatgttcaa 1440  
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 gttttactcg ggacaggagc taagtaaagg taaggtttga aaggaatata atgaaaattt 1560  
 gtctgggttg ttcaagtggg ggtcatctag cacacttgaa ccttttgaaa cccatttggg 1620  
 aaaaagaaga taggttttgg gtaacctttg ataaagaaga tgctaggagt attctaagag 1680  
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 gtgccgctgt agcagtagca ttcttttata ttggtaagtt atttggttgt aagaccgttt 1860  
 atatagaggt tttcgacagg atagataaac caactttgac aggaaaatta gtgtatcctg 1920  
 taacagataa atttattgtt cagtgggaag aaatgaaaaa agtttatcct aaggcaatta 1980  
 atttaggagg aattttttta tgatttttgt cacagtgggg acacatgaac agcagttcaa 2040  
 ccgtcttatt aaagaagttg atagattaaa agggacaggt gctattgatc aagaagtgtt 2100  
 cattcaaacg gggtactcag acttcgaacc tcagaattgt cagtggtaa aatttctctc 2160  
 atatgatgat atgaactctt acatgaaaga agctgagatt gttatcacac atggcgg 2217

<210> 163

<211> 2217

<212> DNA

<213> Streptococcus agalactiae

<400> 163

gcaaaagaac agatggaaca aagtgggttca aagttcttag gtattattct taataaagtt 60  
 aatgaatctg ttgctactta cggcgattat ggaaattacg gaaaaggga tagaaaagg 120  
 aagtaagggg ctcttgattt gaaagaaaaa gaaatatac aaaagattat tatagcgatg 180  
 attcaaacag ttgtggttta tgtttctgta agtttgacat taacattaat cactcccaat 240  
 tttaaaagca ataaagattt attgtttgtt ctattgatac attatattgt cttttatctt 300  
 tctgattttt acagagactt ttggagtcgt ggctatcttg aagagtttaa aatgggtattg 360

aaatacagct tttactatat tttcatatca agttcattat tttttatfff taaaaactct	420
tttacaacga cactgactttc cttttttact tttattgcta tgaattcgat tttattatat	480
ctattgaatt cattttttaa atattatcga aaatattcctt acgctaagtt ttcacgagat	540
accaaagttg ttttgataac gaataaggat tctttatcaa aaatgacctt taggaacaaa	600
tacgaccata attatatcgc tgtctgtatc ttggactcct ctgaaaagga ttgttatgat	660
ttgaaacata actcgttaag gataataaac aaagatgctc ttacttcaga gttaacctgc	720
ttaactggtg atcaagcttt tattaacata ccattgaat tatttggtaa ataccaaata	780
caagatatta ttattgacat tgaagcaatg ggagtgattg tcaatgttaa tgtagaggca	840
cttagctttg ataatatagg agaaaagcga atccaaactt ttgaaggata tagtggtatt	900
acatattcta tgaaattcta taaatatagt cacttatag caaacgatt tttggatata	960
atgggtgcta ttataggttt gctcatatgt ggcatgtg caatttttct agttccgcaa	1020
atcagaaaag atggcggacc ggctatcttt tctcaaaata gagtaggtcg taatggtagg	1080
atTTTTtagat tctataaatt cagatcaatg cgagtagatg cagaacaaat taagaaagat	1140
ttattagttc acaatcaaat gacagggcta atgtttaagt tagaagatga tcctagaatt	1200
actaaaatag gaaaatttat tcgaaaaaca agcatagatg aattgcctca attctataat	1260
gttttaaaag gtgatatgag tttagtagga acacgccctc ccacagttga tgaatatgaa	1320
aagtataatt caacgcagaa gcgacgcctt agttttaagc caggaatcac tgggttggtg	1380
caaatatctg gtagaaataa tattactgat tttgatgaaa tcgtaaagtt agatgttcaa	1440
tatatcaatg aatgggtctat ttggtcagat attaagatta ttctcataac actaaaggta	1500
gttttactcg ggacaggagc taagtaaagg taaggtttga aaggaatata atgaaaattt	1560
gtctgggttg ttcaagtggg ggtcacctag cacacttgaa ccttttgaaa cccatttggg	1620
aaaaagaaga taggttttgg gtaacctttg ataaagaaga tgctaggagt attctaagag	1680
aagagattgt atatcattgc ttctttccaa caaacgtaa tgtcaaaaac ttggtaaaaa	1740
atactattct agcttttaag gtccttagaa aagaaagacc agatgttatc atatcatctg	1800
gtgccgctgt agcagtacca ttcttttata ttggtaagtt atttggttgt aagaccgttt	1860
atatagaggt tttcgacagg atagataaac caactttgac aggaaaatta gtgtatcctg	1920
taacagataa atttattgtt cagtgggaag aaatgaaaaa aatttatcct aaggcaatta	1980
atttaggagg aattttttta tgatttttgt cacagtgggg acacatgaac agcagttcaa	2040

ccgtcttatt aaagaagttg atagattaaa agggacaggt gctattgatc aagaagtggt 2100  
cattcaaacg gggtactcag actttgaacc tcagaattgt cagtgggtcaa aatttctctc 2160  
atatgatgat atgaactctt acatgaaaga agctgagatt gttatcacac atggcgg 2217

<210> 164

<211> 2217

<212> DNA

<213> Streptococcus agalactiae

<400> 164

gcaaaagaac agatggaaca aagtgggttca aagttcttag gtattattct taataaagtt 60  
aatgaatctg ttgctactta cggcgattat ggaaattacg gaaaaaggga tagaaaaagg 120  
aagtaagggg ctcttgtatt gaaagaaaaa gaaaatatac aaaagattat tatagcgatg 180  
attcaaaccg ttgtgggtta tttttctgca agtttgacat taacattaat tactcccaac 240  
tttaaaagca ataaagattt attgtttgtt ctattgatac attatattgt cttttatctt 300  
tctgattttt acagagactt ttggagtcgt ggctatcttg aagagtttaa aatgggtattg 360  
aaatacagct ttactatat tttcatatca agttcattat tttttatttt taaaaactca 420  
tttacaacga cagactttc cttttttact tttattgcta tgaattcgat tttattatat 480  
ctattgaatt cattttttaa atattatcga aaatattctt acgctaagtt ttcacgagat 540  
accaaagttg ttttgataac gaataaggat tctttatcaa aaatgacctt taggaataaa 600  
tacgaccata attatatcgc tgtctgtatc ttggattcct ctgaaaagga ttgttatgat 660  
ttgaaacata actcgttaag gataataaac aaagatgctc ttacttcaga gttaacctgc 720  
ttaactgttg atcaagcttt tattaacata ccattgaat tatttggttaa ataccaata 780  
caagatatta ttaatgacat tgaagcaatg ggagtgattg tcaatgttaa tgtagaggca 840  
cttagctttg ataatatagg agaaaagcga atccaaactt ttgaaggata tagtggtatt 900  
acatattcta tgaaattcta taaatatagt caccttatag caaaacgatt tttggatatc 960  
atgggtgcta ttataggttt gctcatatgt ggcattgtgg caatttttct agttccgcaa 1020  
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ttattagttc acaatcaaat gacggggcta atgtttaagt tagacgatga tcctagaatt 1200  
actaaaatag gaaaatttat tcgaaaaaca agcatagatg agttgcctca attctataat 1260  
gttttaaaag gtgatatgag tttagtagga acacgcctc ccacagttga tgaatatgaa 1320

aagtataatt caacgcagaa gcgacgcctt agttttaagc caggaatcac tggtttggtg 1380  
 caaatatctg gtagaaataa tattactgat tttgatgaaa tcgtaaagtt agatgttcaa 1440  
 tatatcaatg aatggctctat ttggtcagat attaagatta ttctcctaac gctaaaggta 1500  
 gttttactcg ggacaggagc taagtaaagg taagggttga aaggaatata atgaaaatth 1560  
 gtctgggttg ttcaagtggg ggtcacctag cacacttgaa ccttttgaaa cccatttggg 1620  
 aaaaagaaga taggttttgg gtaacttttg ataaagaaga tgctaggagt attctaagag 1680  
 aagagattgt atatcattgc ttctttccaa caaacgtaa tgtcaaaaac ttggtaaaaa 1740  
 atactattct agcttttaag gtccttagaa aagaaagacc agatgttatc atatcatctg 1800  
 gtgccgctgt agcagtagca ttcttttata ttggtaagtt atttggctgt aagaccgttt 1860  
 atatagaggt tttcgacagg atagataaac caactttgac aggaaaatta gtgtatcctg 1920  
 taacagataa atttattggt cagtgggaag aaatgaaaa agtttatcct aaggcaatta 1980  
 atttaggagg aattttttaa tgatttttgt cacagtaggg acacatgaac agcagttcaa 2040  
 ccgtcttatt aaagaagttg atagattaaa agggacaggt gctattgatc aagaagtgtt 2100  
 cattcaaacg ggttactcag actttgaacc tcagaattgt cagtgggtcaa aatttctctc 2160  
 atatgatgat atgaactctt acatgaaaga agctgagatt gttatcacac acggcgg 2217

<210> 165  
 <211> 2225  
 <212> DNA  
 <213> Streptococcus agalactiae

<400> 165  
 gcaaaaagaac agatggaaca aagtgggttca aagttcttag gtattattct taataaagtt 60  
 agtgaatctg ttgctactta cggcgattac ggcgattatg gaaattacgg aaaaaggat 120  
 agaaaaagga agtaaggggc tcttgatttg aaagaaaaag aaaatataca aaagattatt 180  
 atagcgatga ttcaaacagt tgtggtttat ttttctgcaa gtttgacatt aacattaatt 240  
 actcccaatt taaaagcaa taaagattta ttgtttgttc tattgatata ttatattgtc 300  
 ttttatcttt ctgattttta cagagacttt tggagtcgtg gctatcttga agagtthaaa 360  
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 <212> DNA  
 <213> Streptococcus agalactiae

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<210> 167

<211> 2226

<212> DNA

<213> Streptococcus agalactiae

<400> 167

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&lt;211&gt; 2226

&lt;212&gt; DNA

&lt;213&gt; Streptococcus agalactiae

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&lt;210&gt; 169

&lt;211&gt; 2226

&lt;212&gt; DNA

&lt;213&gt; Streptococcus agalactiae

&lt;400&gt; 169

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<212> DNA

<213> Streptococcus agalactiae

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&lt;211&gt; 2722

&lt;212&gt; DNA

&lt;213&gt; Streptococcus agalactiae

&lt;400&gt; 176

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<210> 177

<211> 2692

<212> DNA

<213> Streptococcus agalactiae

<400> 177

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<211> 2581

<212> DNA

<213> Streptococcus agalactiae

<400> 178

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 ttagaatata tataagcaat tcttcaatac tatttctgct ttggttattt atttatttat 660  
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<210> 179

<211> 2577

<212> DNA

<213> *Streptococcus agalactiae*

<400> 179

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<210> 180

<211> 450

<212> DNA

<213> Streptococcus agalactiae

<400> 180

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 gctattcagc aaattattat atcaacaag gtgctaaata ttatagtaat ccgagtgaag 240  
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<210> 181

<211> 450

<212> DNA

<213> Streptococcus agalactiae

<400> 181

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<211> 11

<212> DNA

<213> Streptococcus agalactiae

<400> 182

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11